

REMARKS

The Office examined claims 1-20 and rejected same. With this paper, reconsideration is requested.

Rejections under 35 USC §103

Claims 1-17 and 19-20 are rejected under 35 USC §103 as being unpatentable over U.S. Pat. App. Pub. No. 2001/0015720, hereinafter Inukai, in view of U.S. Pat. No. 6,806,865, hereinafter Oueslati.

The independent claims are 1, 11 and 19. All require an input button provided as a flattened shape lying in or on and nearly flush with a surface of the communication or computing device so as to have an exposed surface and having a cavity or receptacle formed on the exposed surface for receiving an end portion of an indicator instrument unattached to the input button, and for receiving a force exerted on the input button via the indicator instrument, and also detecting the force exerted on the input button based on the input button moving or deforming in response to the force, and for providing a signal corresponding to the force.

The Office notes that Inukai fails to disclose the input button. For this, the Office relies on Oueslati.

With respect to the independent claims 1, 11 and 19, Oueslati discloses a joypad 125 integrated into a handheld computer 100 (Figure 1). The joypad may include a receptacle 128, for inserting all or a portion of a stylus 200. At col. 3, line 28, Oueslati discloses that the integrated joystick may be configured to be moved in a continuum of directions from 0-360 degrees and communicate an analog signal to computing electronics of handheld computer 100.

Inukai discloses a stick member 22 of the sort that protrudes slightly from a keyboard (see Fig. 4 and see par. [0036]). At paragraph [0009], Inukai explains that:

0009] The present invention has been made in view of the above circumstances and has an object to overcome the above problems and to provide a pointing device of simple structure capable of detecting the amount of strain on a single substrate, a keyboard mounting the pointing device, and an electronic device provided with the keyboard.

It is thus plain to see that Inukai is directed at a pointing device for a keyboard. Oueslati, on the other hand, shows a joystick integrated into a handheld computer that does not even include a keyboard, but instead includes only keys 117 for providing directional input (as explained at col. 3, lines 61-62).

It is not possible to replace the stick member 22 of Inukai with the integrated joystick 125 of Oueslati, as the Office proposes, because there is not enough space between the keys of a keyboard for the integrated joystick. But even if the joystick/button of Oueslati could somehow be placed in between keys of a keyboard in replacement of the stick member of Inukai as proposed by the Office, it would not be possible to use it as required by the invention, i.e. the button could not receive an end portion of an indicator instrument and move or deform in response to a force exerted on the button via the indicator instrument, because again, there is not enough space between the keys of the keyboard.

As set out in the MPEP at 2143.01 (V. THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE), if a proposed modification would render the prior art invention being modified unsatisfactory for its

intended purpose, then there is no suggestion or motivation to make the proposed modification.

Since there is no suggestion or motivation to make the proposed modification, as there must be per the MPEP at 706.02(j), the rejections of the independent claims must be withdrawn.

Also, the rejections of all the other claims must be withdrawn, at least by virtue of their dependencies.

In addition in respect to dependent claims 8 and 14, both require that the input button move or deform so as to communicate a force directed orthogonally to the surface of the communication or computing device. The Office asserts that Inukai discloses this at par. [0050] in connection with the stick member 22 of Inukai being used to indicate a "clicking input." Applicant respectfully points out that at the cited location all that is disclosed in this respect is that:

... if the detection signals from the transducers 9a and 9b represent more than a predetermined amount, the above program processes to establish a state where an operation signal representing a click has been input.

In other words, if the stick member is pushed horizontally (the only possible motion disclosed by Inukai) by more than a certain amount, that excessive push in the horizontal direction is interpreted as a clicking input, without there having been a force directed orthogonally to the surface of the communication or computing device. Thus, the stick member 22 of Inukai cannot be said to communicate such a force as required by the invention, since it cannot sense such a force. In fact, if an orthogonal force is applied, the stick member will not move at all, and so an orthogonal force cannot be used to indicate a clicking input (or any other input).

In addition in respect to dependent claims 9 and 17, Oueslati does not teach or suggest an input button moving or deforming so as to communicate a force couple (as in claim 9), or sensing means for providing a signal indicative of a force couple (as in claim 17). The Examiner relies on Oueslati, at col. 4, lines 30-37 for a disclosure of same. However, at the cited location Oueslati teaches only communicating forces lying in a plane horizontal to the plane in which the input button lies (and in any direction in that plane). At col. 3, lines 40-43, Oueslati discloses:

Yet further still, joypad 125 may be configured to be moved in a continuum of directions from 0-360 degrees and communicate an analog signal to computing electronics of handheld computer 100.

(These "directions" relate to motion of a cursor on a display, as is clear from Inukai throughout.) Thus, what is communicated is a signal indicative of a (single) force lying in a plane (and pointing in any direction in the plane), but not a force couple (two forces, separated by a moment arm). Applicant sees that Inukai does indicate at col. 4, lines 45-46, that the integrated joypad 125 can be provided to tilt in response to an input force, which could result from a force couple, but there is no teaching of communicating a force couple.

In addition in respect to dependent claim 10, applicant respectfully submits that the Inukai and Oueslati cannot be said to teach or suggest the recited box-in-box construction, including an inner box and an outer box, the inner box provided as a flattened shape having an indentation formed on an exposed surface, and the outer box having sensing means responsive to forces applied to the inner box via an end portion of an indicator instrument, for providing a corresponding signal indicating a user input. The Examiner asserts that the box-in-box is disclosed by a proposed change in the teachings of Inukai.

The outer box is asserted as disclosed by Inukai as sensor elements 8a-8d (Figure 3): The proposed change is to replace the indicator instrument/ stick member 22 of Inukai with "the flattened shape having the indentation formed on the exposed surface" (i.e., presumably, the button cavity 128) of Oueslati, so that the inner box results. For the reasons given in respect to claim 1, though, there is no suggestion or motivation to make the proposed modification.

The Office rejects claim 18 over Inukai and Oueslati as applied to claim 1, and further in view of US 2003/0125094 (Hyun). Claim 18 is believed allowable at least by virtue of its dependency from claim 1, believed allowable for the reasons given above.

Accordingly, applicant respectfully requests that all the rejections under 35 USC §103 be reconsidered and withdrawn.

Conclusion

For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. Applicant's attorney urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

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Date

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